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BACKGROUND

The Nebraska Ethanol Board is a state agency established in 1971 by Nebraska statute. The board is directed to assist the private sector in establishing ethanol production facilities; promote air quality improvement programs; establish marketing procedures for ethanol based fuels; and sponsor research related to the use of ethanol fuels.

In 1988 the board entered into an agreement for research and development of ethanol based ethers and fuels containing combinations of alcohol/ether mixtures. Partnership in this effort was with American Eagle Fuels (AEF), a private corporation. The board and AEF expended more than \$2 million to develop a small commercial scale facility capable of producing ethyl tertiary butyl ether (ETBE). ETBE was produced at the facility near Lincoln, Nebraska and small quantities of the product were sold in Japan, Europe and the United States for experimental purposes. At the same time, the board engaged in an extensive cooperative testing program with Sun Refining Company and other parties to examine the properties of ethanol/ether combinations. This work was intended to form the basis for an application to the U.S. EPA that would seek approval for higher concentrations of ethanol/ether mixtures to be blended in gasoline for commercial sale.

The board's investment in research and development of ETBE was based on the expectation that ethanol and ETBE would play a significant role in oxygenated and reformulated fuel programs required under the Clean Air Act Amendments of 1990. Discussions during debate on CAA amendments, and recorded floor debate in the Senate, clearly reflect the expectation that ethanol and ETBE use would increase significantly as a result of the oxygenate requirements included among the 1990 amendments to the Act.

IMPACT OF MTBE

Despite expectations that ethanol and ETBE would capture a significant share of the oxygenated fuel market, experience in the marketplace differed significantly from early expectations. In one of the first oxygenated fuel markets, the Colorado Front Range, the oxygenate most often used at the outset of the Colorado program was MTBE. In the initial years of the program, MTBE use constituted as much as 95% of the oxygenated fuel sold during the carbon monoxide abatement program. This occurred despite the fact that ethanol could easily be transported by rail and truck from Nebraska and other locations at rates competitive with gasoline. In other oxygenated fuel program areas in the Midwest, such as Milwaukee, MTBE quickly captured the market for oxygenated gasoline despite the proximity of such areas to large ethanol production facilities. In oxygenated fuel program areas outside the Midwest, the aggressive marketing of low priced MTBE allowed virtual market control. Price was clearly a key and MTBE was available at rates equal to or below the cost of gasoline.

The experience in reformulated gasoline market areas was similar to the carbon monoxide abatement program. A review of U.S. EPA market surveys of RFG areas for 1995-97 clearly illustrates the trend toward MTBE. Early surveys show modest use of ethanol in a few metropolitan areas and nominal use of ETBE in fewer areas. However, the data show a clear trend toward MTBE use following the first year of the federal RFG program. The trend generally continues, with few exceptions, in 1999.

The technical attributes of ETBE are well documented. Compared to MTBE, ETBE is

superior in virtually all areas except price. ETBE, in the opinion of many refiners and auto makers, is the perfect oxygenate because "it acts like gasoline". Octane and distillation properties, low vapor pressure characteristics, and ability to reduce aromatic and sulfur levels while maintaining other performance qualities of gasoline make ETBE an excellent component for cleaner burning gasoline. However, economics in the highly competitive world of petroleum refining and marketing is the key criteria in most oxygenate purchasing transactions. MTBE has a distinct advantage in pricing due, in large part, to the low cost of methanol.

Methanol and MTBE are global commodities and as such respond to pricing strategies of the largest producers of these products. The public announcement of King Fahd's 1992 royal decree was clearly a confirmation that a significant incentive was being instituted in the pricing of methanol and related components of MTBE. This incentive has been calculated to provide raw material price discounts at levels thirty per cent below world prices. The impact of this decree has been apparent over the past seven years. MTBE production from Saudi Arabian plants has increased rapidly and steadily, to nearly 100,000 barrels per day according to published reports. That volume constitutes nearly half of total U.S. MTBE demand. Due to this low cost, made possible by the Saudi Arabian subsidy, a significant volume of the MTBE used in the U.S. today is imported directly or indirectly from plants in Saudi Arabia. As a result, ETBE cannot possibly be competitive with this product on a cost basis, despite the obvious technical advantages of ETBE. In addition, domestic MTBE producers are keenly aware of this pricing differential and the adverse impact it has on domestic supply and price.

CONCLUSION

The result of the Saudi Arabian subsidy is clear. Domestic ethanol and MTBE producers are disadvantaged and oxygenates from domestic production facilities are often displaced by low cost MTBE imports from Saudi Arabia. The intent of Congress has been thwarted by imported MTBE use in the oxygenate programs which were intended to stimulate a domestic industry. U.S. grain producers who were told of the predictions for increased corn and grain sorghum use via ethanol and ETBE plants have not seen that domestic market materialize in the substantial way predicted in 1990. The U.S. balance of trade, already reeling from a high level of imported petroleum products, is further exacerbated by increased imports of MTBE from off shore plants. Oxygenate pricing, pegged to the lower cost MTBE imports from Saudi Arabia, reduces revenue and return on investment of domestic oxygenate producers, thereby discouraging investment in new or expanded plants in the United States. As a result, the oxygenated fuel provisions of the Clean Air Act are not generating domestic economic benefits to the extent possible. The mechanism generating these adverse impacts, instituted following the 1992 royal decree, must be removed or offset to protect domestic economic interests.

THE VERY BAD DEBT BOXSCORE

Mr. HELMS. Mr. President, at the close of business yesterday, Wednesday, April 21, 1999, the federal debt stood at \$5,630,289,872,162.63 (Five trillion, six hundred thirty billion, two hundred eighty-nine million, eight hundred seventy-two thousand, one hundred sixty-two dollars and sixty-three cents).

One year ago, April 21, 1998, the federal debt stood at \$5,518,978,000,000 (Five trillion, five hundred eighteen billion, nine hundred seventy-eight million).

Five years ago, April 21, 1994, the federal debt stood at \$4,555,161,000,000 (Four trillion, five hundred fifty-five billion, one hundred sixty-one million).

Ten years ago, April 21, 1989, the federal debt stood at \$2,754,358,000,000 (Two trillion, seven hundred fifty-four billion, three hundred fifty-eight million) which reflects a doubling of the debt—an increase of almost \$3 trillion—\$2,875,931,872,162.63 (Two trillion, eight hundred seventy-five billion, nine hundred thirty-one million, eight hundred seventy-two thousand, one hundred sixty-two dollars and sixty-three cents) during the past 10 years.

COMMEMORATION OF THE ARMENIAN GENOCIDE

Mr. REED. Mr. President, I rise to commemorate the 84th anniversary of the Armenian Genocide.

This weekend, members of Armenian communities around the world will gather together to remember the spring morning of April 24, 1915, when the Ottoman Empire and the successor Turkish nationalist regime began a brutal policy of deportation and murder. Over the next eight years, 1.5 million Armenians would be massacred at the hands of the Turks and another 500,000 would have their property confiscated and be driven from their homeland.

Despite having already undergone such terrible persecution and hardship, the people of the Armenian Republic still suffer today. The peace talks have regrettably made little progress toward the resolution of the Karabagh conflict. Turkey continues to blockade humanitarian aid to Armenia.

However, the Armenian people look hopefully to the future. Their quest for peace and democracy continues to inspire people around the world. On May 30th, Armenia will again hold democratic elections. Armenians who have emigrated to other countries, especially those in my home state of Rhode Island, bring their traditions with them. They enrich the culture and contribute much to the society of their new homelands.

Although each year's commemoration of the Armenian genocide is important, I believe this year's observance is particularly significant—because of the crisis in Kosovo. Each night the television shows images of hundreds of thousands of refugees forced from their homes and each morning the paper is filled with stories of innocent civilians robbed and killed. These stories and images are heartwrenching—but the people of Kosovo have not been abandoned. The nineteen nations of NATO are united in their resolve that another genocide will not be tolerated.